

Claims

1. A weighing machine for weighing portions of material, which weighing
5 machine comprises a frame structure on which a central distributor, a
plurality of linear conveyors and a plurality of scales are mounted, and
wherein the linear conveyors are arranged around the central distributor and
each is configured as a conveyor duct suspended in relation to a
10 counterweight by means of spring elements extending between the conveyor
duct and the counterweight in such a manner that the transport duct is, by
means of a vibrator intended therefore, caused to vibrate in a vibration
pattern causing it to transport, during the vibration, material from the central
distributor and radially outwards to the scales, **characterised in** that the
15 counterweight for each of the transport ducts in the linear conveyors are
constituted of the frame structure of the machine, the spring elements for
each transport duct being mounted directly on the frame structure.
2. A weighing machine according to claim 1, **characterised in** that the
vibrator configured for each transport duct comprises a current-carrying
20 magnetizing element that will, by application of a current, emit a varying
magnetic field, and wherein the current-carrying magnetizing element is
mounted directly on the frame structure of the machine in such a manner that
the magnetic field emitted from the magnetizing element influences a
transport duct arranged opposite the magnetizing element to vibrate in
25 relation to the frame structure of the machine.
3. A weighing machine according to claim 1 or 2, **characterised in** that each
of the scales is, via an electrical weighing cell, mounted directly on the frame
structure of the machine, said weighing cell being configured for emitting an
30 electrical signal in response to the force by which the scale influences the
weighing cell.

4. A weighing machine according to claim 3, **characterised in** that the machine comprises control means that are configured for individually and as required activating and discontinuing the vibrations in each of the conveyor
5 ducts, and wherein there is further provided a calculator unit for performing a calculation of the weight of material in each of the scales, while simultaneously vibrations are activated in one or more of the conveyor ducts.
- 10 5. A weighing machine according to claim 4, **characterised in** that, in the calculator unit or the weighing cell for each of the scales, means are provided for filtering off the electrical signals emitted by the weighing cell due to vibrations transmitted from the linear conveyors through the frame structure of the machine and to the weighing cell.
- 15 6. A weighing machine according to claim 5, **characterised in** that the means for filtering off are in the form of an electronic filter.
- 20 7. A weighing machine according to one of the preceding claims, **characterised in** that the frame structure of the machine is manufactured in a moulding process by use of a metallic moulding material, such as aluminium or other metal alloy suitable for moulding.
- 25 8. A weighing machine according to claim 7, **characterised in** that the frame structure has an overall weight that is at least ten times and preferably more than 40 times the weight of each of the conveyor ducts.
- 30 9. A weighing machine according to one of the preceding claims, **characterised in** that the frame structure of the machine comprises one or more essentially uninterrupted shieldings in the form of shield faces that extend outwards and downwards in relation to the centre axis A of the machine underneath the central distributor 2 and/or the linear conveyors 3.